

# UPDATE FROM GAVI, THE VACCINE ALLIANCE

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## SAGE MEETING

Dr. Seth Berkley, CEO  
17 October 2017



# Gavi and SAGE

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- SAGE as Gavi's technical body
- Gavi's support for SAGE
- 2030 agenda

# SAGE is a critical partner for the Gavi Alliance

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- **Gavi relies on SAGE technical guidance. Current agenda items with direct application for Gavi programme design and potential future investments:**
  - Typhoid conjugate vaccine implementation
  - PCV catch ups
  - Rabies PEP, route, RIG
  - Polio IPV catch ups
  
- **SAGE members engaged in Gavi decision-making processes**
  - SAGE Chair is non-voting member of Gavi Programme & Policy Committee
  - Decision-making on new vaccines: Vaccine Investment Strategy
    - Steering Committee: Jon Abramson (Chair), Helen Rees, Firdausi Qadri

# SAGE guidance on typhoid will shape upcoming decision on Gavi vaccine support

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- **Gavi Board prioritised TCVs in VIS 2008 for potential future funding**
- **First PQ vaccine enables considering of support for implementation**
- **SAGE recommendations affect key inputs for Gavi Board decision in November, including likelihood of impact and cost:**
  - What is the most optimal strategy– national vs subnational?
  - Additional evidence required:
    - Burden data? SSA?
    - Quality of surveillance?
    - Impact of AMR?
    - Better diagnostics?

# Gavi filling critical evidence gaps identified by SAGE

## Evidence for decision-making

**Surveillance:** Hib, Pneumo, NM, Rota  
**VIS Learning agenda:** Operational feasibility and health impact

- Rabies PEP
- Oral Cholera vaccine
- Malaria RTS,S vaccine

## Demonstrate Impact

- PCV health and economic impact, including alternative dosing schedule
- Rotavirus vaccine health impact
- Impact modeling

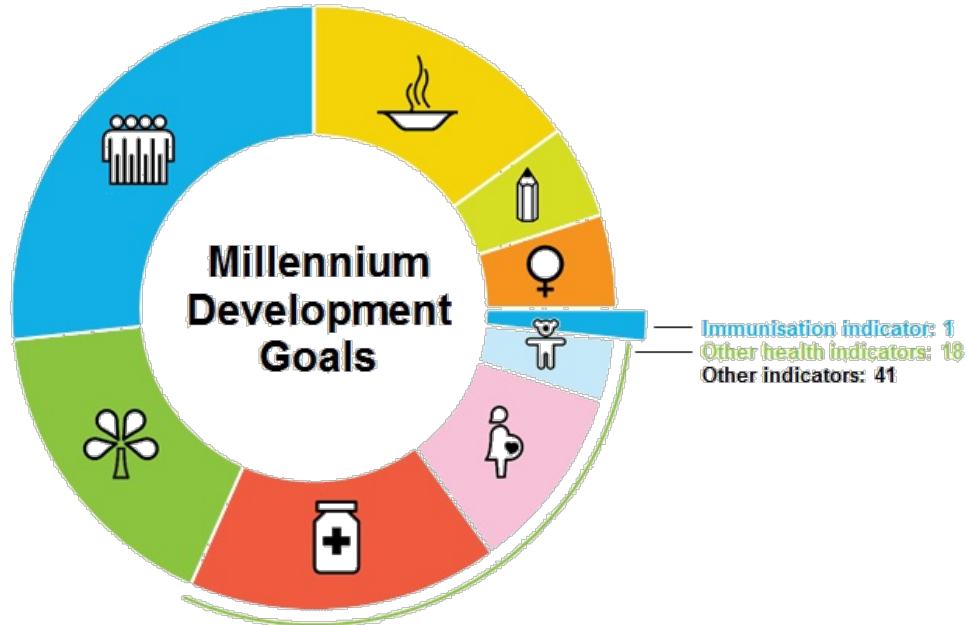
## Mitigate risks

- Risk-benefit of rotavirus vaccination (i.e. intussusception)
- Serotype replacement with PCV
- Congenital rubella syndrome with rubella vaccination

## Optimize effectiveness

- Implementation research to increase PCV uptake
- Understanding missed opportunities for FIC
- Implementation research for C&E

# State of play: 2030 agenda



3 Health Goals out of 8  
6 Health Targets out of 21  
1 immunisation indicator out of 60



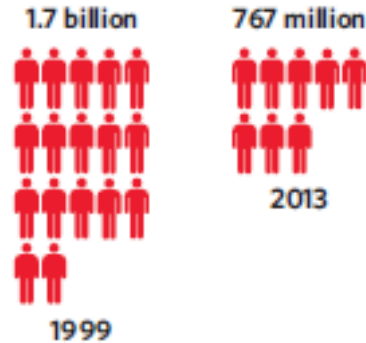
1 Health Goal out of 17  
28 Health targets out of 169  
2 immunisation indicators out of 227



# SDGs setting bold aspirations

## Goal 1: End poverty in all its forms everywhere

Number of people living in extreme poverty  
fell significantly



## Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2000-2002 to about 11 per cent in 2014-2016. Globally, about 793 million people were undernourished in 2014-2016, down from 930 million in 2000-2002.

## Goal 6: Ensure availability and sustainable management of water and sanitation for all



5.2 billion people used a "safely managed" drinking water service in 2015



2.9 billion people used a "safely managed" sanitation service in 2015

## Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all

► In 2014, 85.3 per cent of the global population had access to electricity, up from 77.6 per cent in 2000. However, 1.06 billion people still lived without this basic service.

The Sustainable Development Goals Report  
2017



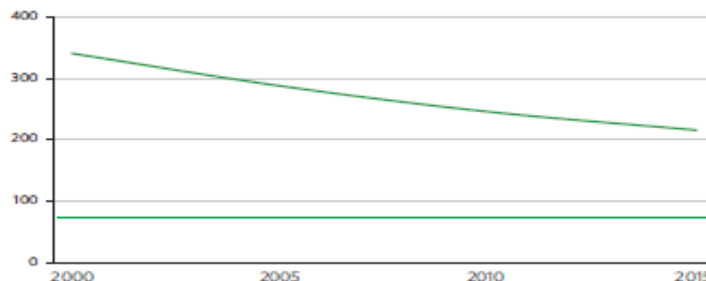


# Health goals also ambitious



3.1 Maternal mortality

Maternal mortality ratio worldwide, 2000-2015 (maternal deaths per 100,000 live births)

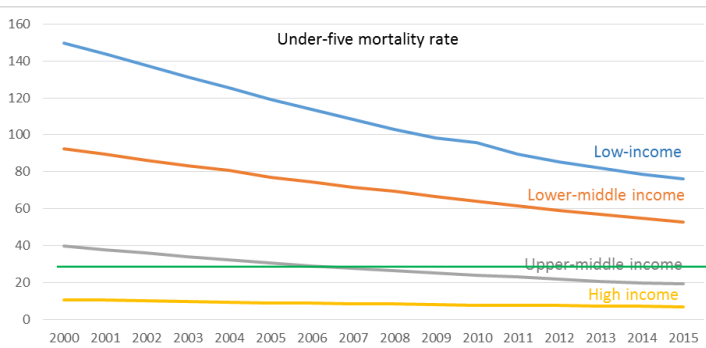


Target: 70

*Requires a 3-fold decrease  
By 2030*



3.2 Newborn and child mortality



Target: 25

*Requires a 3-fold decrease for low-income countries by 2030*



3.3 Communicable diseases

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases



# Targets for immunisation are bold

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## **3.b.1 Proportion of the target population covered by all vaccines included in their national programme**

- Primary immunisation indicator in the SDGs, aligns with GVAP

## **3.8.1 UHC Index: Coverage of essential health services (defined as the average coverage of essential services)**

- “Full child immunisation” is 1 of 16 tracer indicators aggregated together.

# Need equally bold indicators

## Proposed indicator:

Measles 2<sup>nd</sup> dose



measles 1<sup>st</sup> dose:  
**100%** of countries  
introduced

measles 2<sup>nd</sup> dose:  
**79%** of countries

## Aspirational indicator:

11 WHO-recommended vaccines

**19%**  
of countries  
introduced\*

\* 20% if BCG is excluded

DTP	Hep B	Rota-virus
Hib	Measles	Polio
Rubella	Pneumo	BCG

**Need to  
measure real  
progress**

# Update on Gavi Board decisions

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- **IPV**
- **Risk**

# Gavi extending support for IPV

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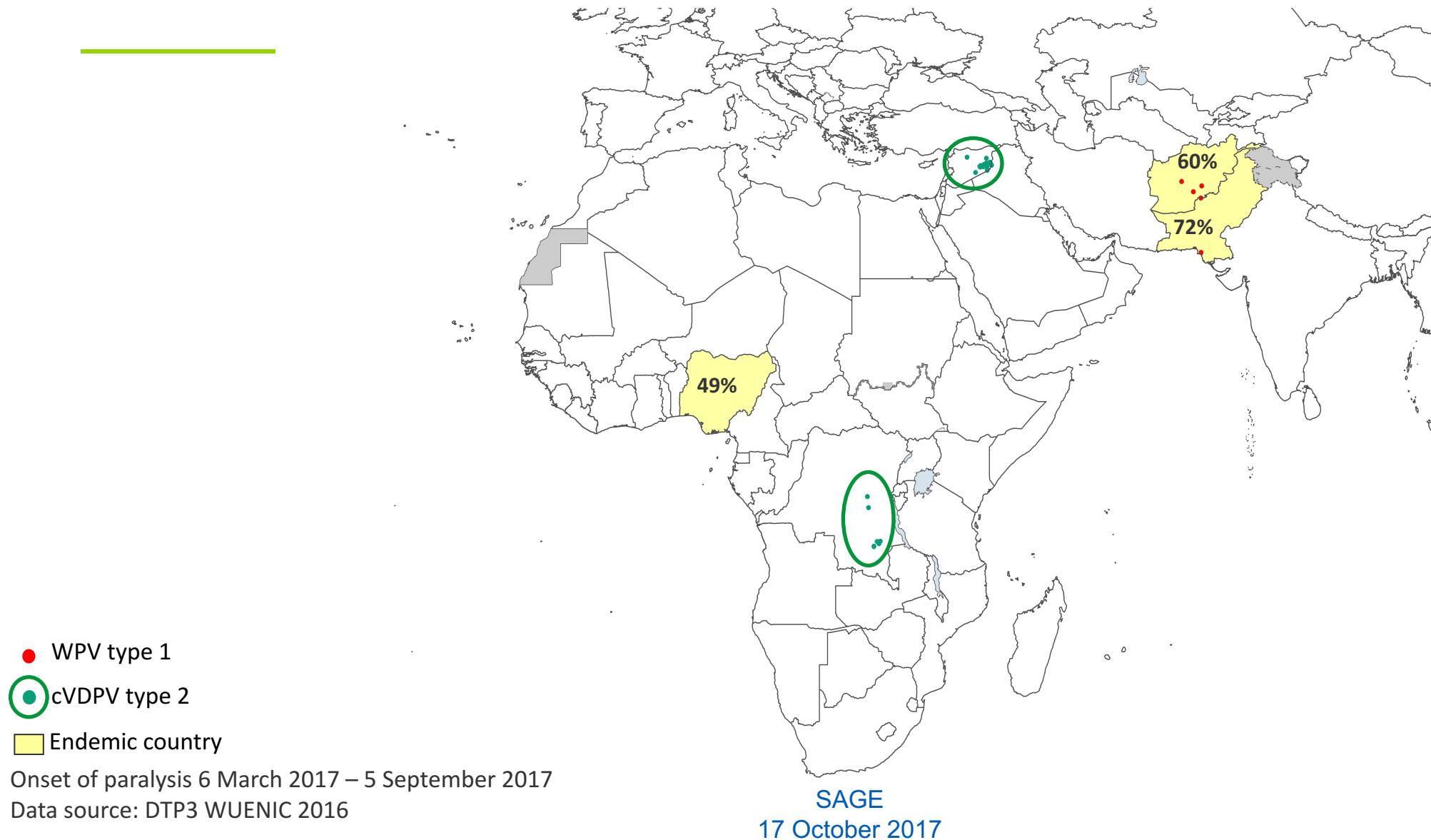
## **June 2017 Board approved continued support of IPV through 2020**

- Extension of Gavi policy exceptions, contingent on GPEI funding
- Post-2020 support to be determined through VIS

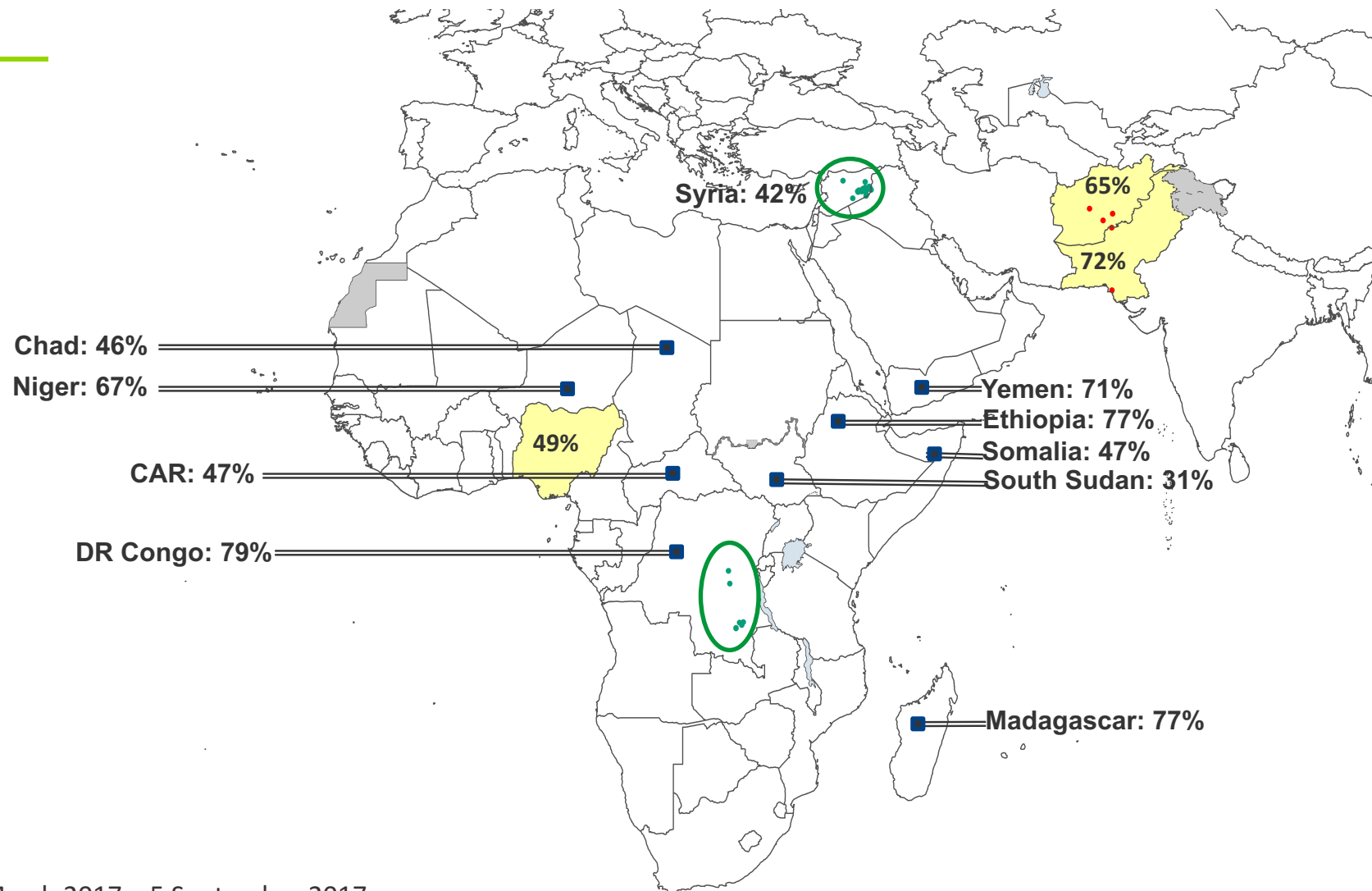
## **Collaboration with country-level polio transition planning**

- Inclusion of polio asset mapping information & data in Joint Appraisal discussions
- Time-limited Gavi support being provided for gaps created in key immunization strengthening activities

# Low polio3 coverage a risk to achieving and sustaining eradication



# Low polio3 coverage a risk to achieving & sustaining eradication



● WPV type 1

● cVDPV type 2

■ Endemic country

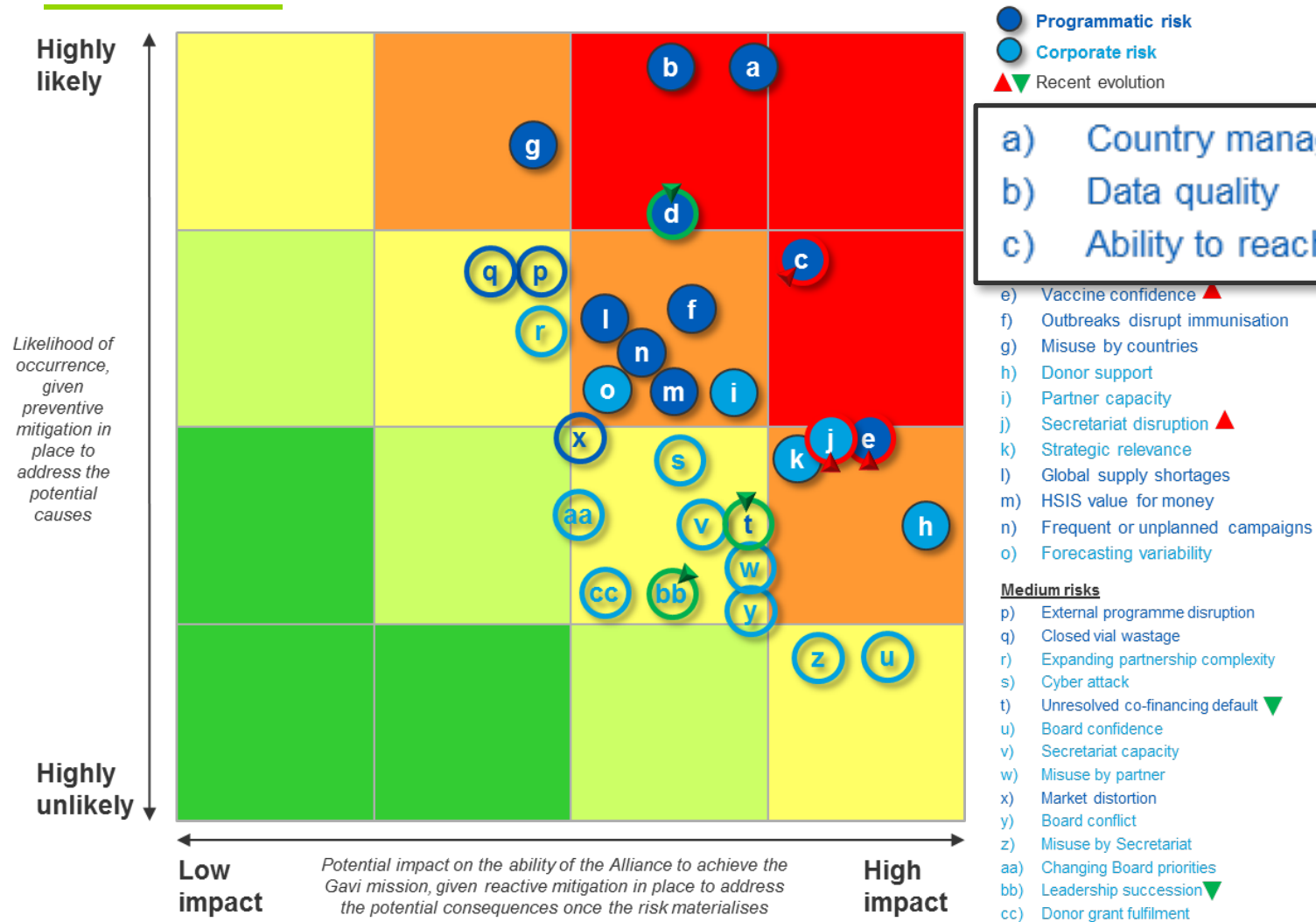
Onset of paralysis 6 March 2017 – 5 September 2017

Data source: DTP3 WUENIC 2016

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# Gavi's 2017 Risk & Assurance Report identifies 15 tops risks facing Alliance



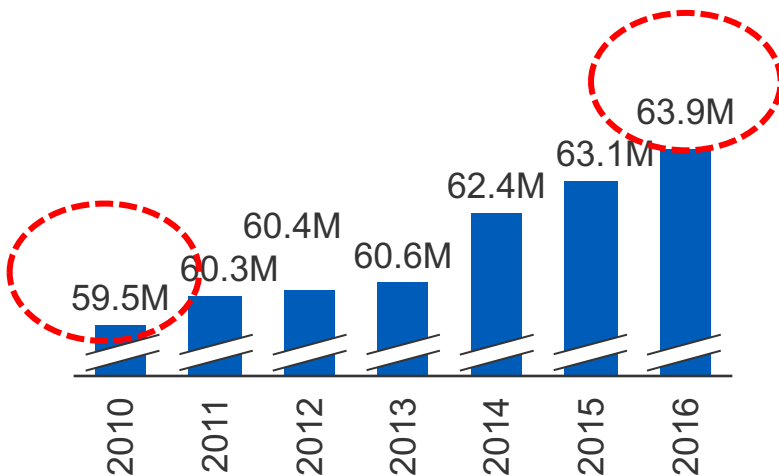
*Top three risks all assessed as being outside Risk Appetite*

# Update on Gavi strategy and programmes

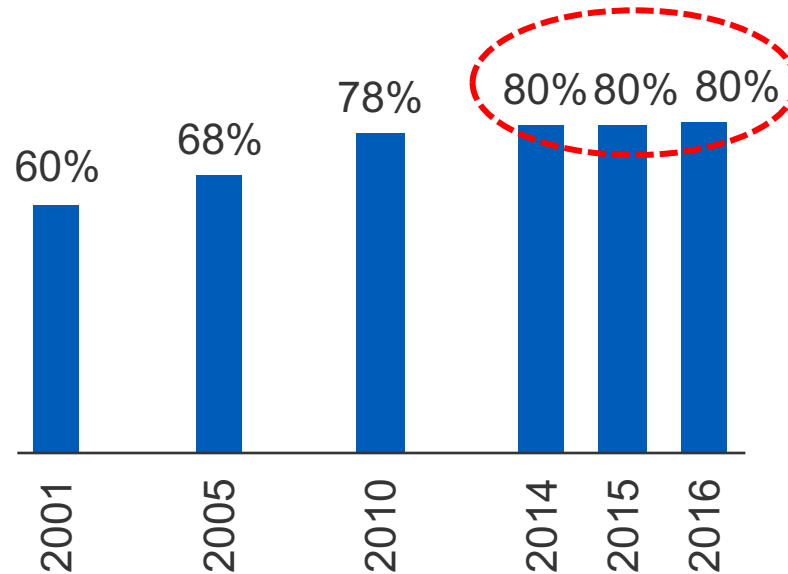
- Coverage & equity
- Sustainability
- Cholera
- Yellow fever
- Polio
- Measles-rubella
- HPV

# More children than ever are receiving DTP3 containing vaccines but WUENIC coverage estimates are flat

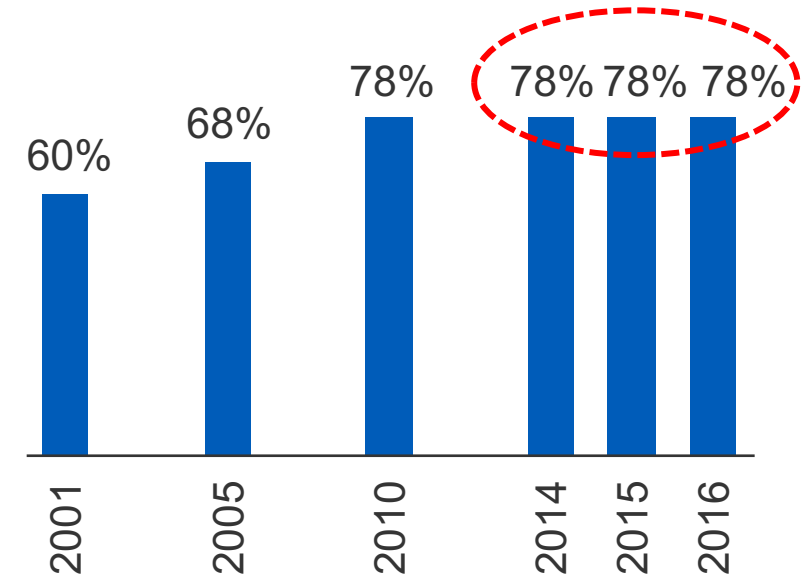
Children immunised with DTP3 containing vaccine (Gavi68)



DTP3 containing vaccine (Gavi68)

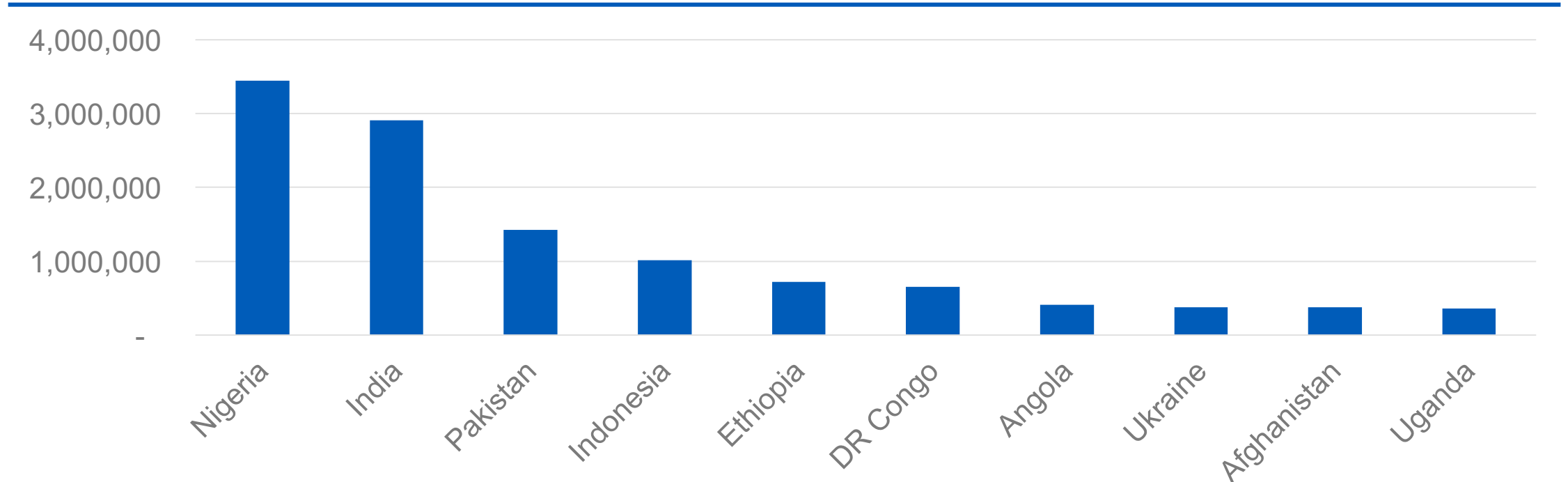


MCV1 (Gavi68)



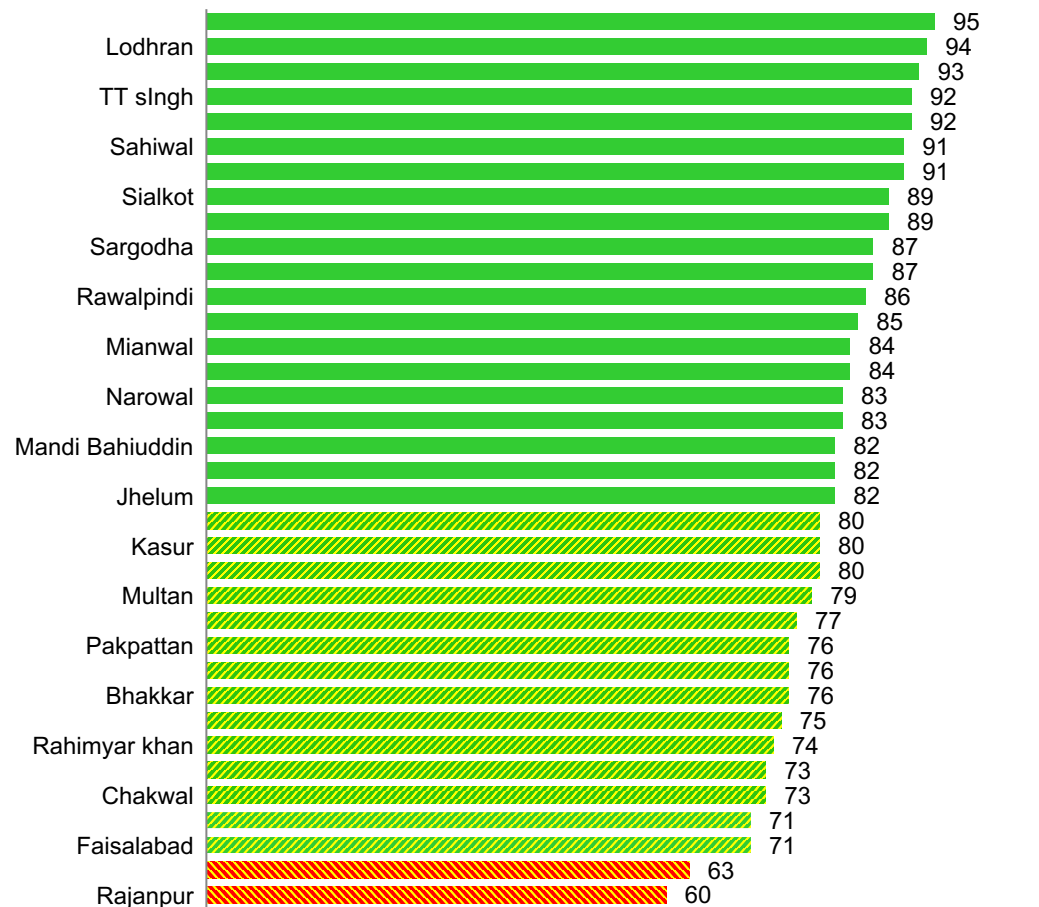
# Ten countries home to >75% of under-immunised children in Gavi

**Top 10 countries by number of under-immunised children**  
(with three doses of pentavalent vaccine)



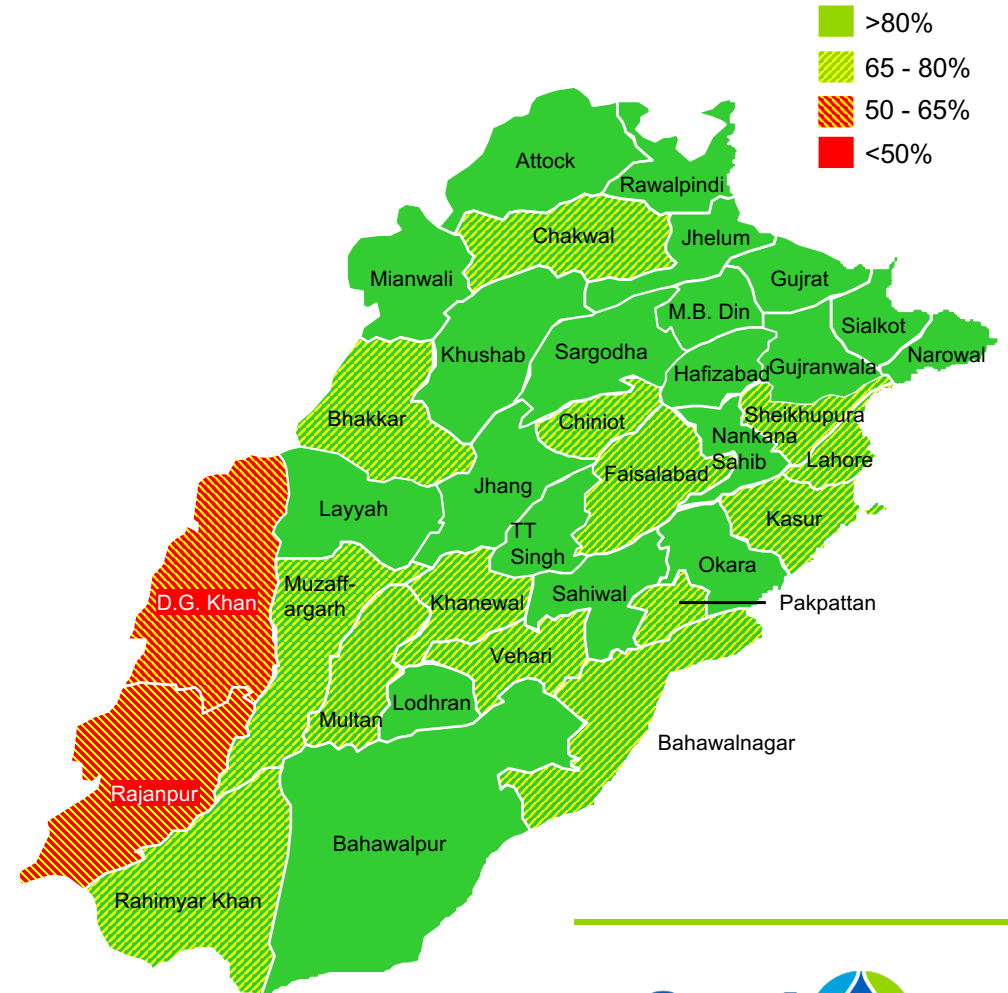
# Increased focus on sub-national data & performance (Punjab, Pakistan example)

**Penta 3 coverage, age 6-11 months old**  
% PHS 2016, & change from Dec 2015



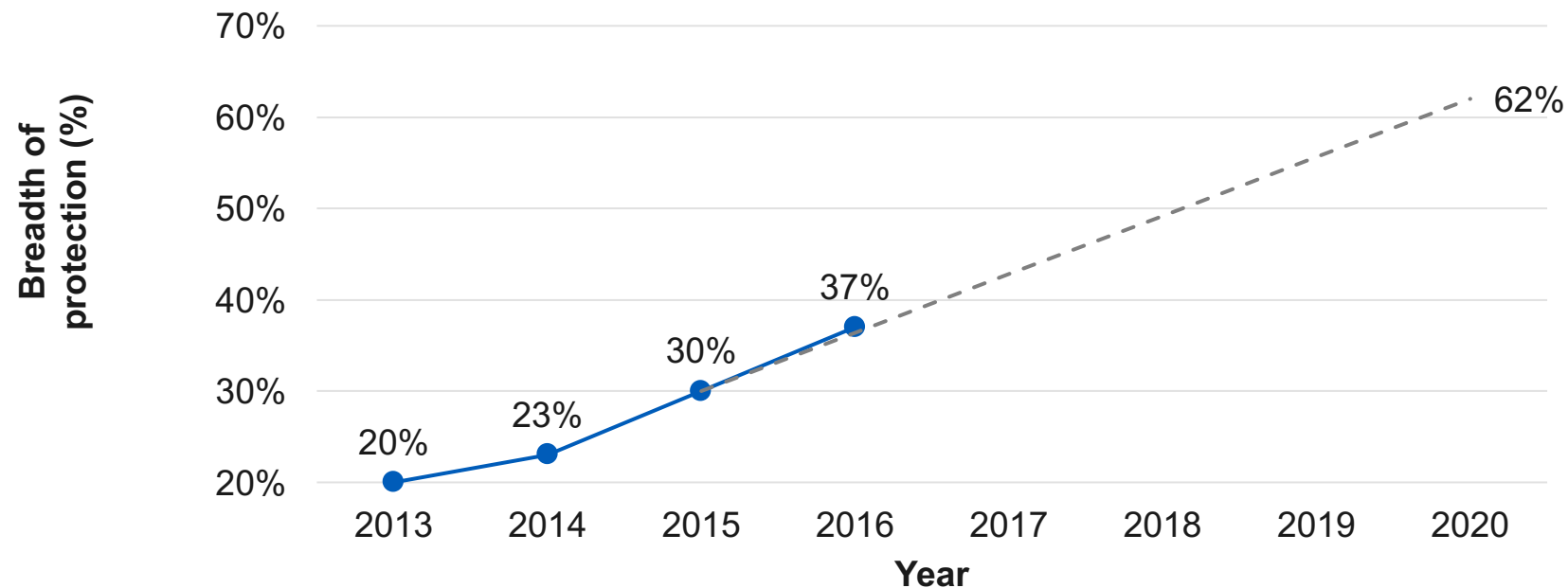
\*DG Khan change is versus June 2015, as Dec 2015 data is not available

**Change**



# Breadth of protection\* tracking above trend

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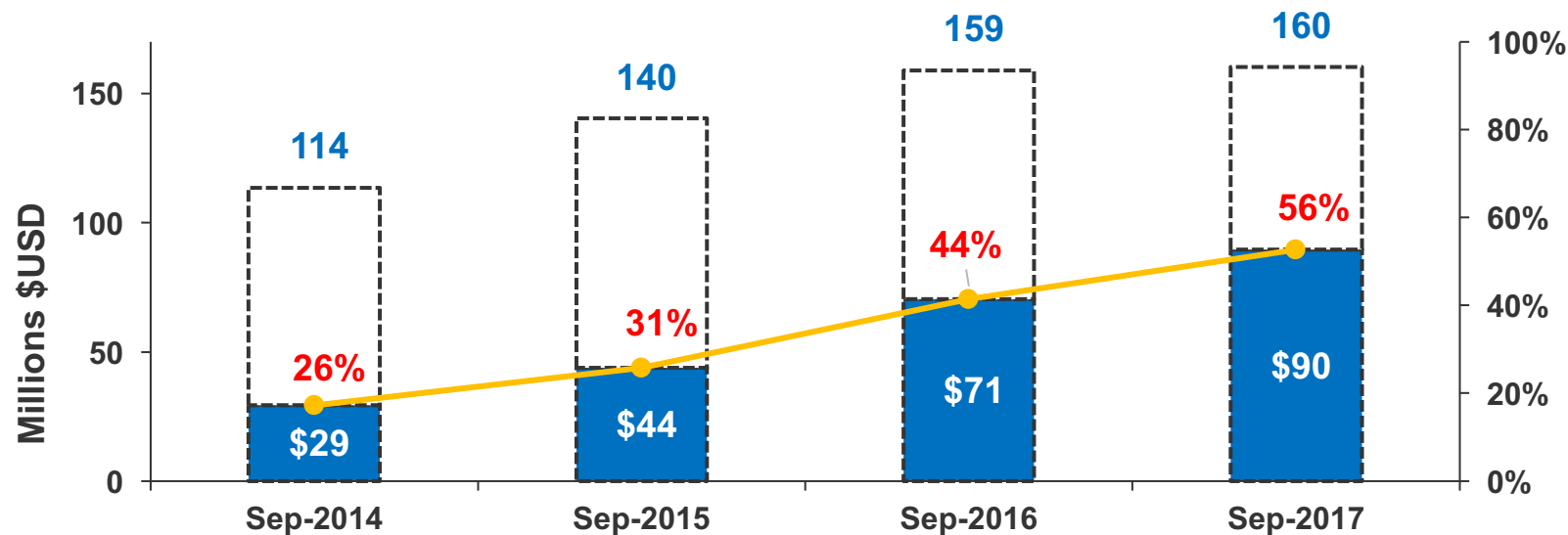


\*Average coverage across all Gavi-supported vaccines in Gavi-supported countries



# Co-financing performance has significantly improved since 2014

Total obligations expected and % paid by September of each year



**Countries post transition are estimated to be spending \$50M in formerly Gavi-supported vaccines in 2017**

■ Total amounts received    ▤ Total obligation expected    ● % of total obligation amount received

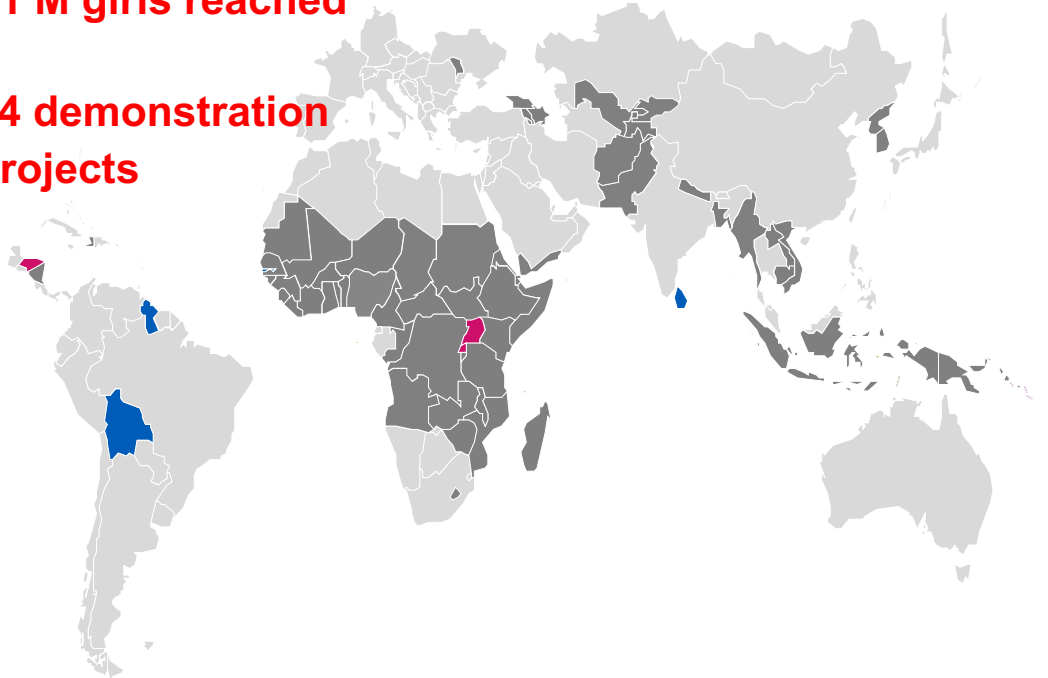
Notes: (i) Total obligation expected is based on amounts as per decision letters; (ii) Amounts for countries with co-financing requirements aligned to their fiscal years (June-July), namely Pakistan and Kenya, were apportioned based on the fiscal year adjustment plans

# New HPV vaccine programme design to accelerate scale-up among Gavi countries: at risk due to supply constraints

## HPV Programme 2012-2016

~1 M girls reached

24 demonstration projects



- National introductions
- Approved National Programmes
- Applied National Programmes

## HPV Programme 2017

HPV vaccine: supply shortages could jeopardise 2020 target

Fully immunised girls (millions)



# Dec 2015 new Measles & Rubella Strategy: Progress being made but challenges remain

## Key areas of progress

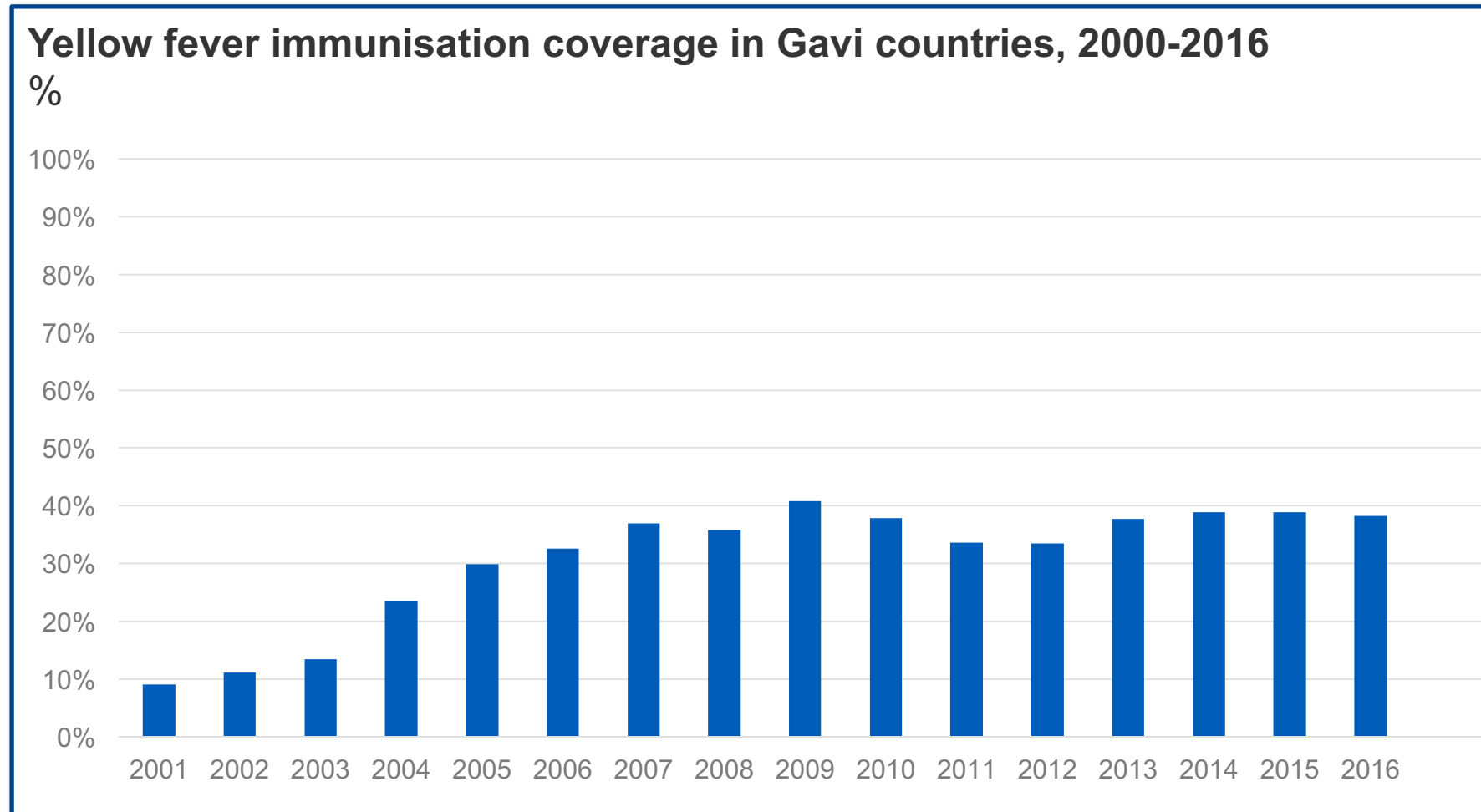
- India: Largest ever MR campaign reaching >400M children
- Indonesia: <15yo MR campaign to vaccinate >67M children
- Stronger Gavi-M&RI collaboration focused on 6 countries with most under-immunised

## Challenges

- Long term planning and budgeting; use of modeling
- MCV1 coverage in Gavi73 countries flat at 78%
- Campaigns still business as usual vs. focused on unreached with bringing them into RI
- Independent monitoring & mop-up strategies
- Vaccine resistance aided by social media
- Fiscal risk; perverse incentives



# Yellow fever immunisation coverage stagnant



- **Coverage stagnant over past decade**
- **Continued cases including in high-risk settings e.g., Nigeria**

Data source: WUENIC estimates (released July 2017)


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# Slow progress in implementing Yellow Fever EYE strategy

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Gavi Board approved up to \$150 million increment in resources to the Alliance's existing Yellow Fever control support for the period 2017-2020.

## Mass preventive campaigns

-  Ghana
-  Nigeria
-  Sudan
-  DR Congo (application)

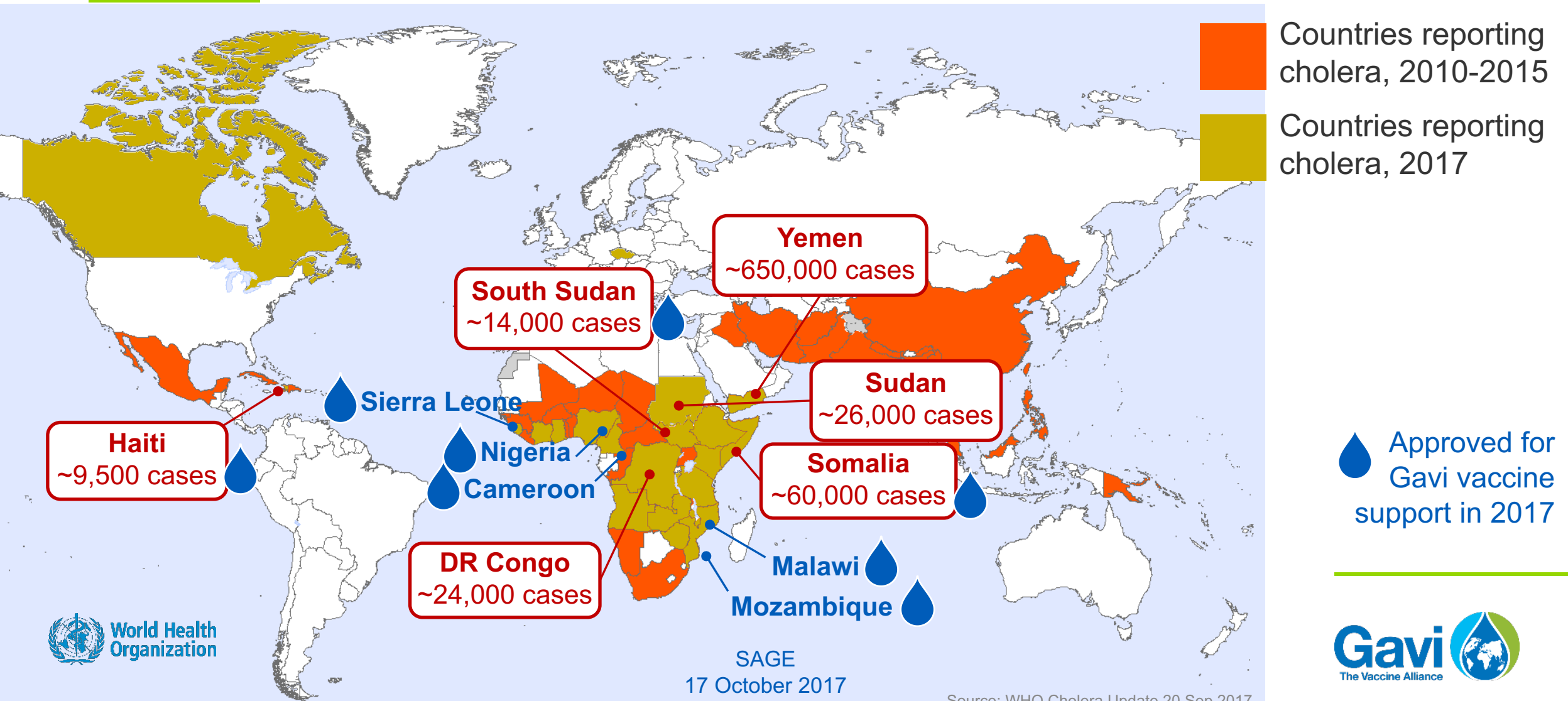
## New applications for routine YF vaccination

-  Ethiopia
-  Sudan
-  South Sudan
-  Uganda

## Strengthened governance and accountability

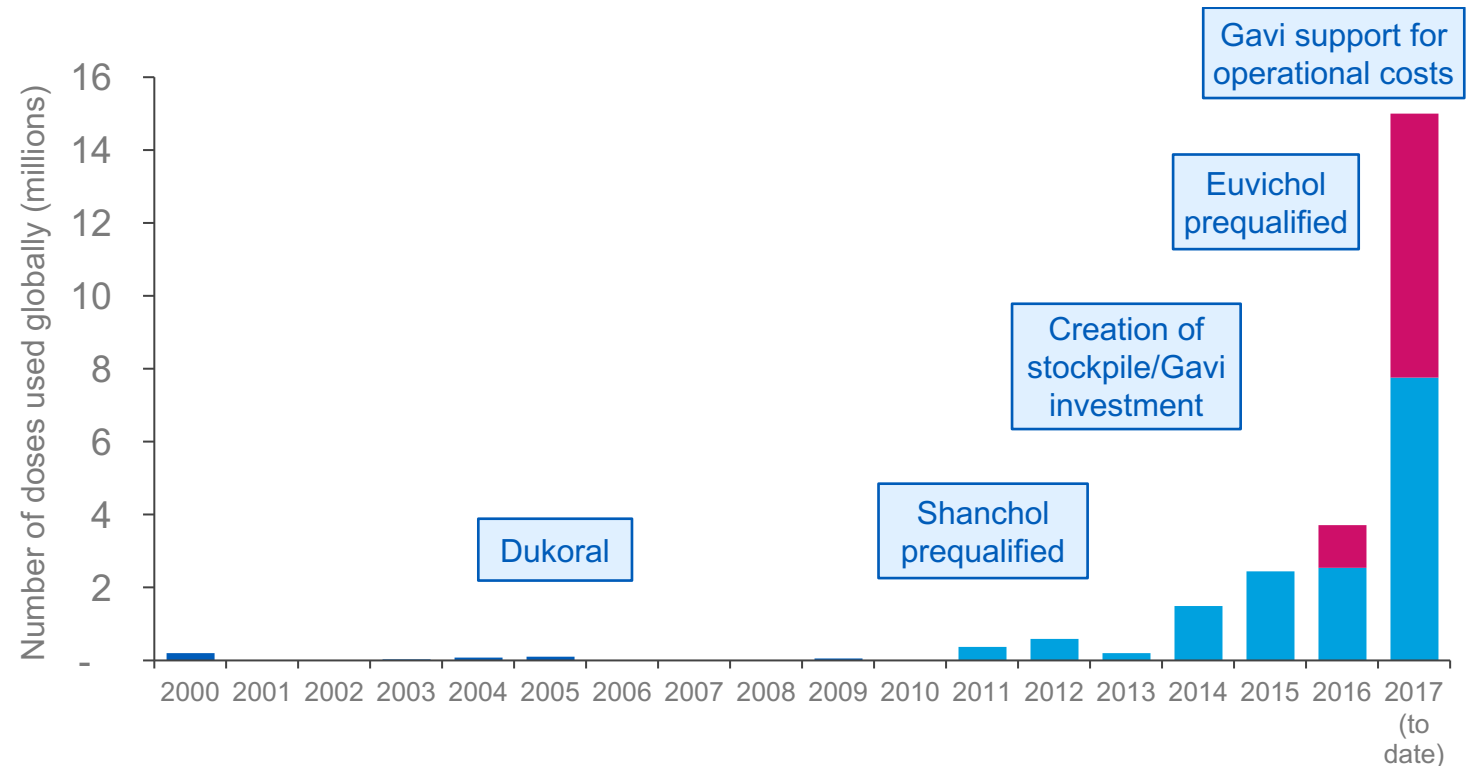
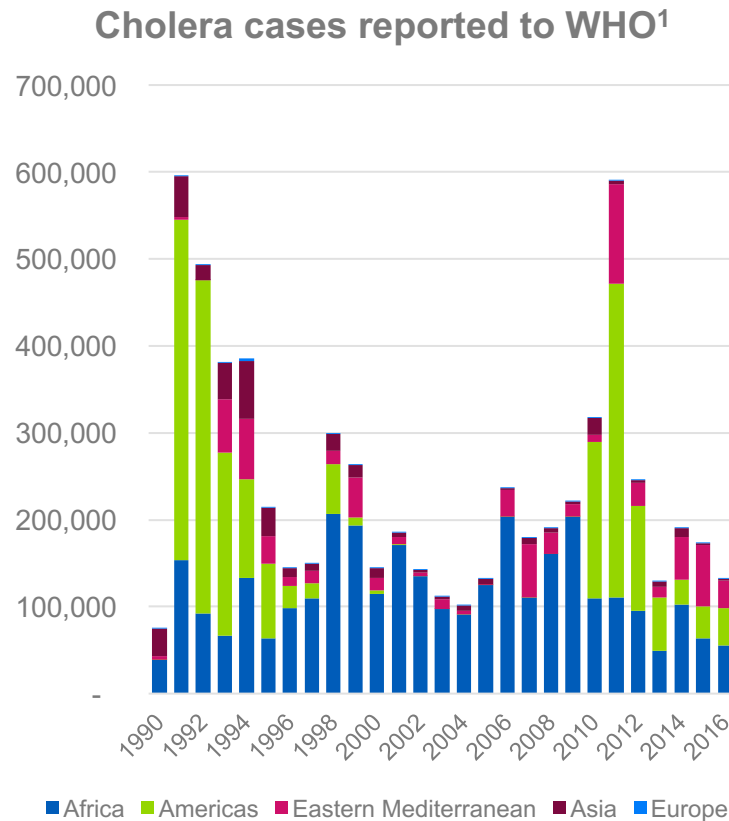
-  Global level governance structure has been formed
-  Key working groups not yet operational

# Cholera: affected countries





# Rapid increase in use of OCV despite lack of evidence on increased incidence



1: Source: WHO Global Health Observatory data repository, accessed 25 Sept 2017

2: 2017 data is approved as of 29 Sept 2017

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# Vaccination campaigns and routine immunisation

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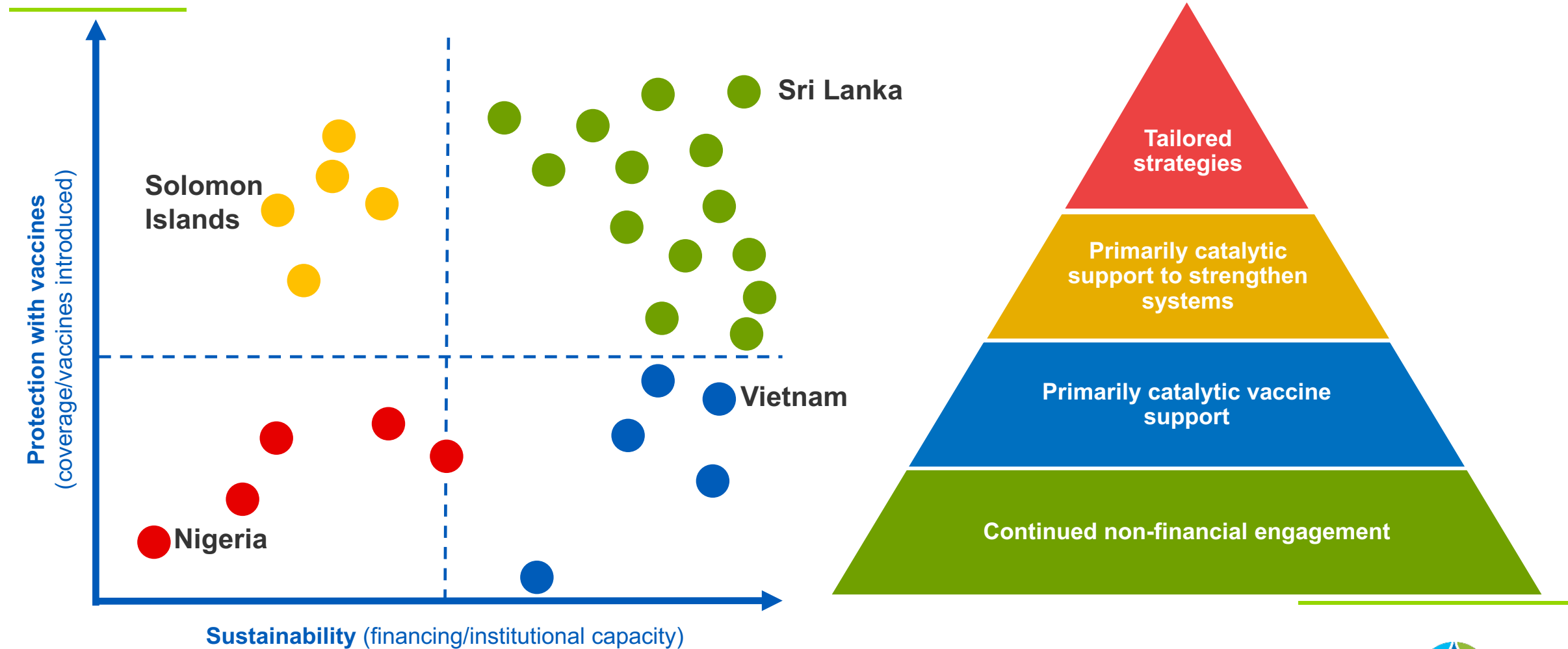
- **Many Gavi countries follow the guidance of conducting regular nationwide follow up campaigns**
- **Important tool to reach unreached but inherent challenges**
  - Reliance on campaigns for service delivery & to address recurrent outbreaks
  - Resource intensive
  - Increased visibility of AEFIs & escalation due to social media
  - Refusal by mothers due to repeated campaigns 'campaign fatigue'
  - Fiduciary risk
- **Need to leverage existing C&E strategies in country context to maximise routine coverage and pre-empt emerging issues**

# Upcoming priorities on Gavi agenda

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- **High-risk transitioning countries**
- **Post-transition engagement**
- **Data**
- **VIS**

# Countries largely on track for transition but Alliance working to mitigate key risks



# High-level commitment to strengthening data

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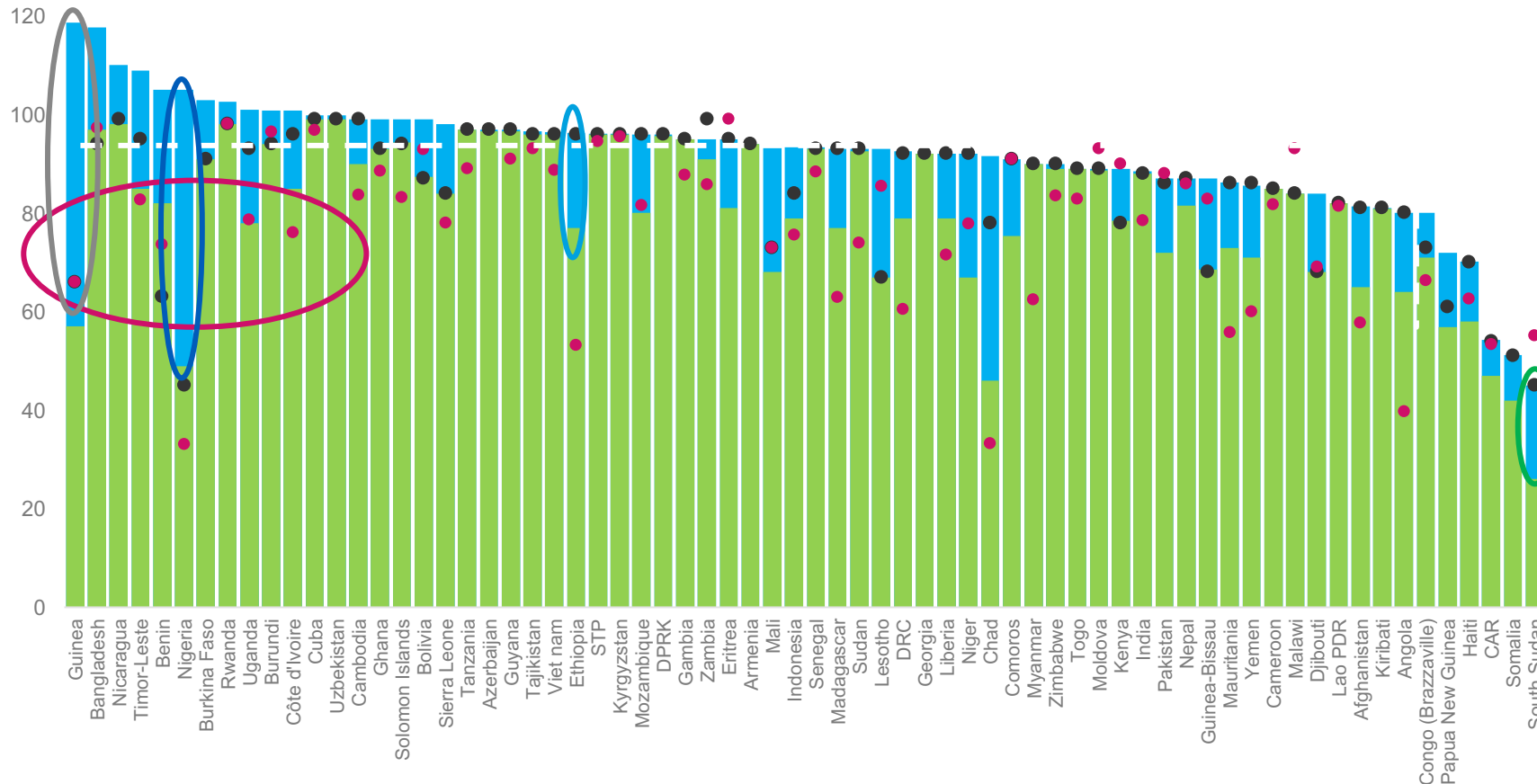


Meeting of the leaders of the five agencies coordinating the Decade of Vaccines: WHO, UNICEF, Gavi, the Gates Foundation, US NIH (April 2017)

The leadership council committed to

- improved data use
- improved accountability
- mechanisms for improvement including leveraging polio lessons and approaches

# 2016 penta3 coverage estimates – significant disparities depending on data source



**13** countries reporting **100% or greater** administrative coverage

**34** countries with **10 percentage point or greater difference** between admin and last survey (n=53)

**10** countries with **20 percentage point or greater difference** between admin and WUENIC

**34** countries with **10 percentage point or greater difference** between admin and WUENIC

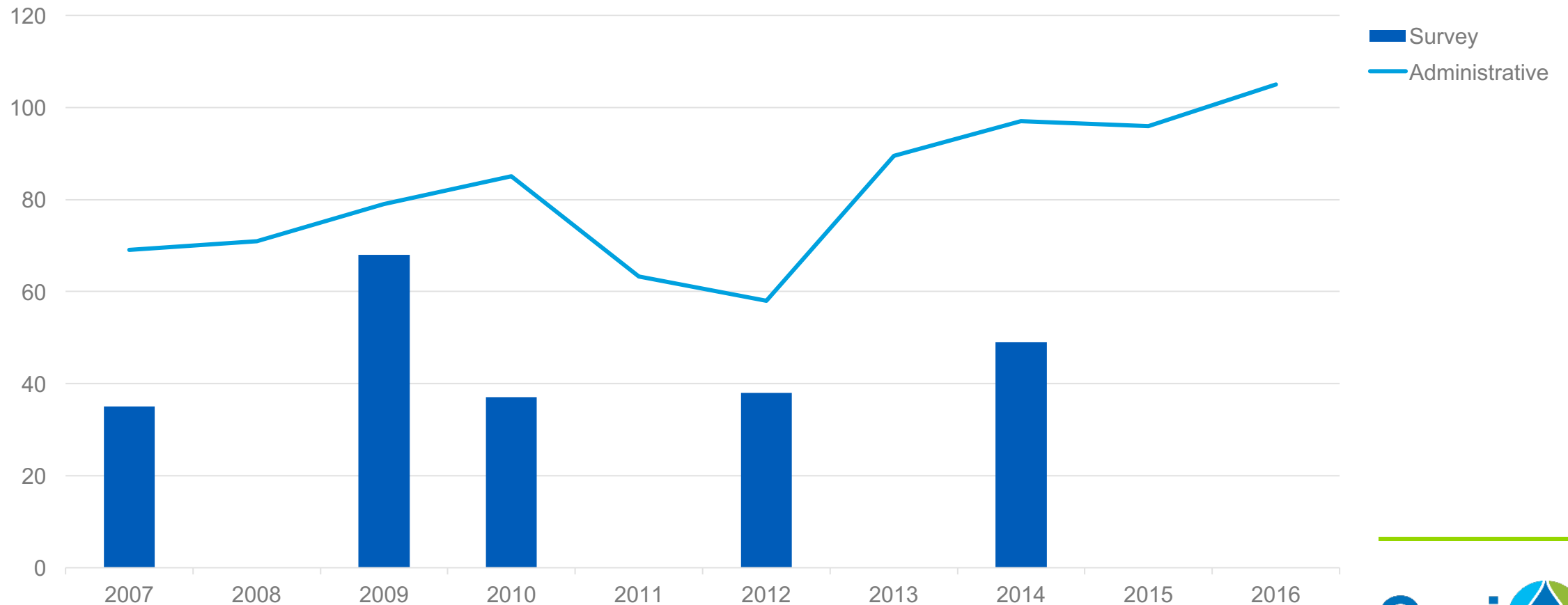
**24** countries with **10 percentage point or greater difference** between Gov. official estimate and WUENIC

Green bar represents highest value of WUENIC/Admin  
 Blue bar represents highest value of WUENIC/Admin  
 Pink Dot represents last survey  
 Black dot represents official government estimate  
 Source: WUENIC July 2017 release



# Country example: Nigeria coverage data

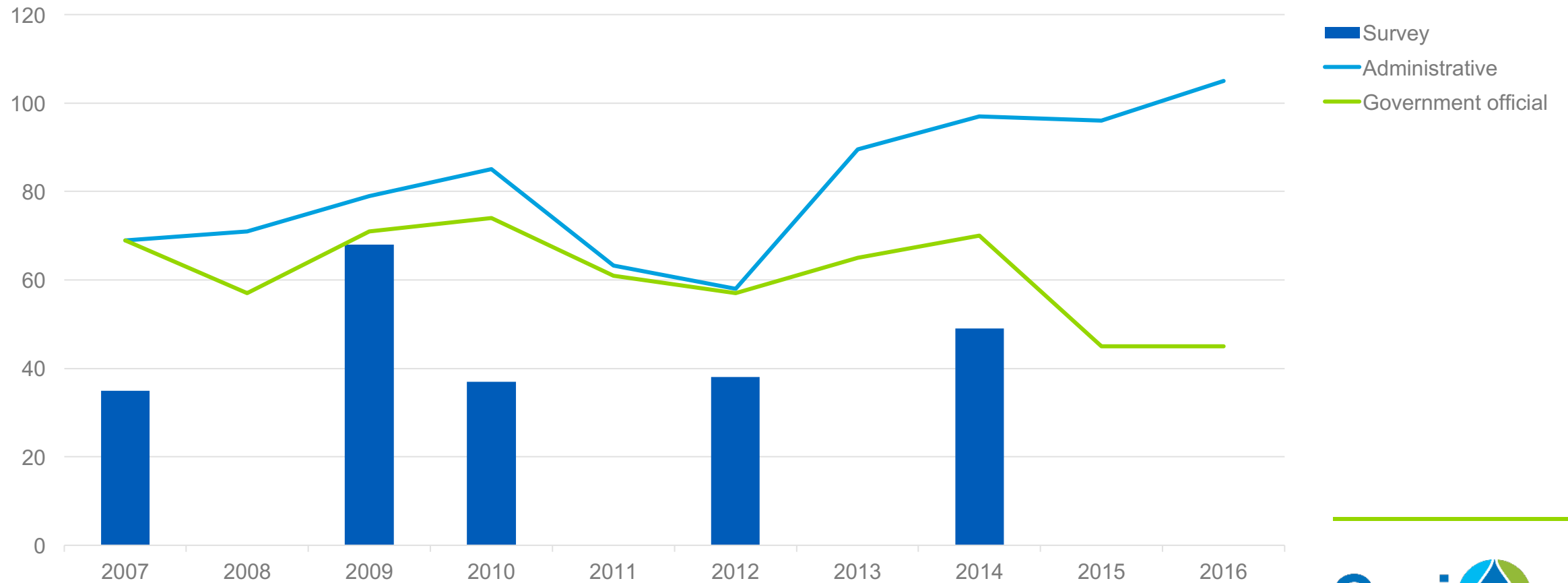
Coverage with three doses of DTP-containing vaccine, %



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# Country example: Nigeria coverage data

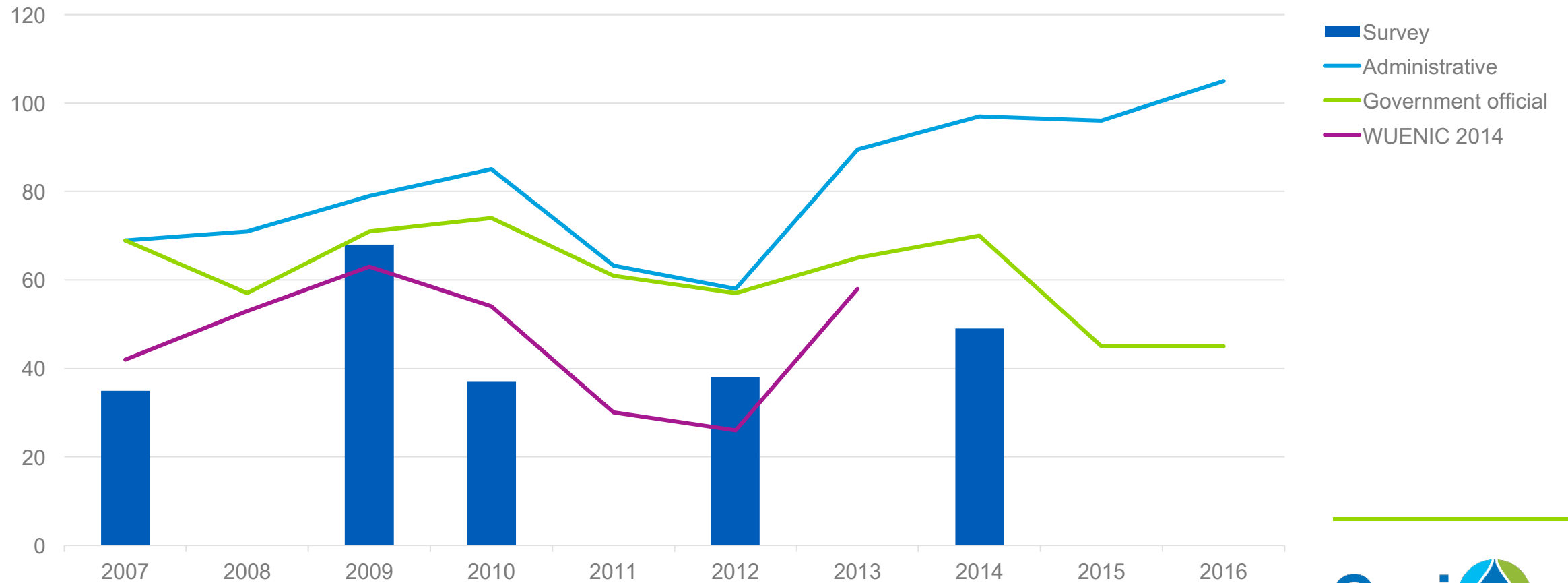
## Coverage with three doses of DTP-containing vaccine, %



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# Country example: Nigeria coverage data

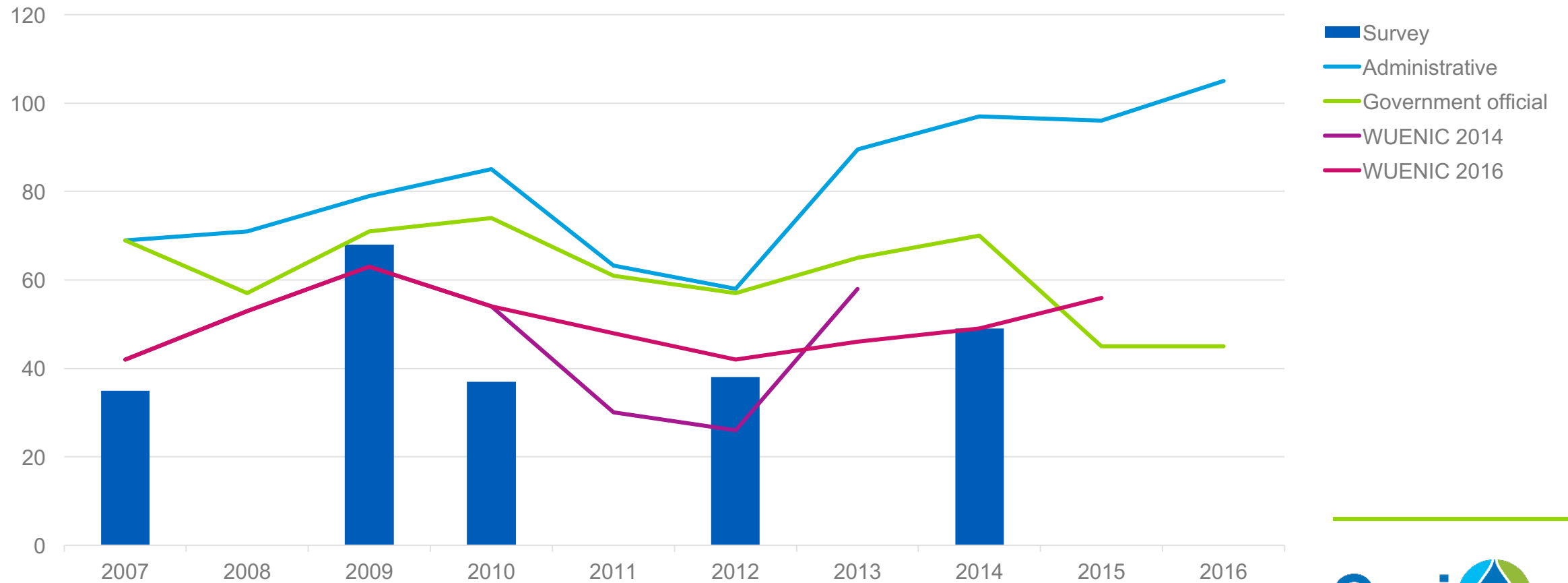
## Coverage with three doses of DTP-containing vaccine, %



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# Country example: Nigeria coverage data

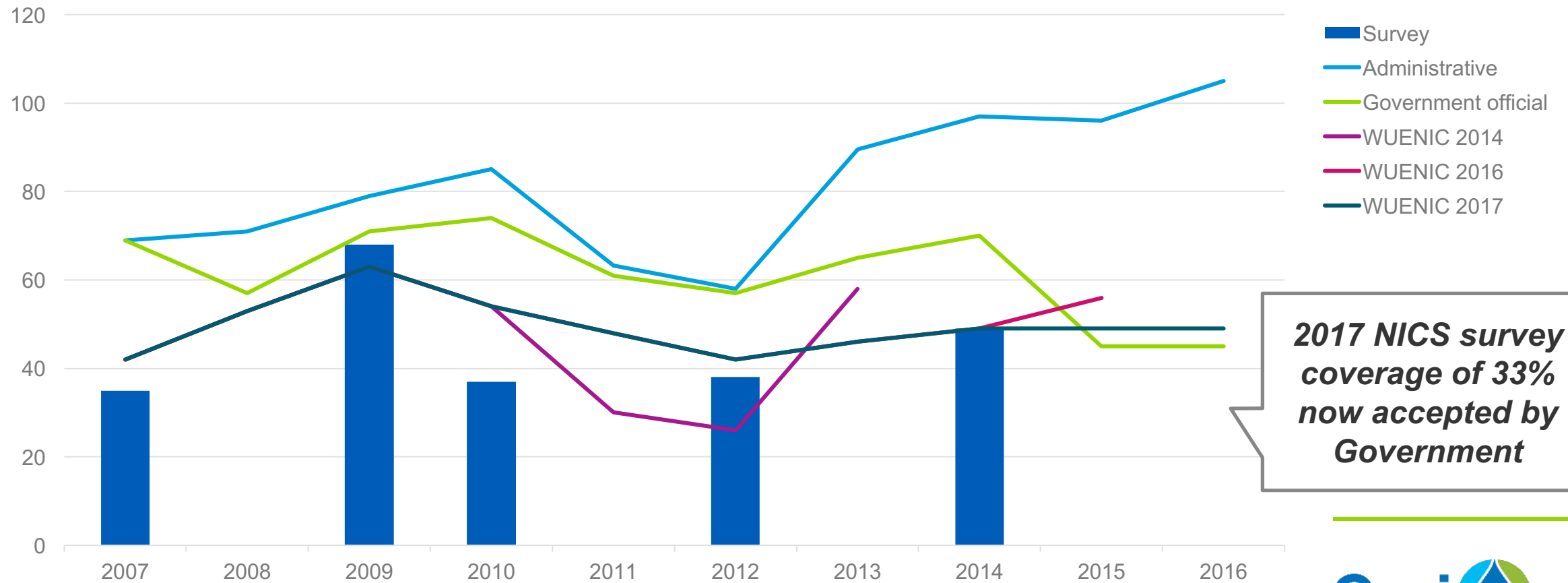
## Coverage with three doses of DTP-containing vaccine, %



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# Country example: Nigeria coverage data

## Coverage with three doses of DTP-containing vaccine, %



**2017 NICS survey  
coverage of 33%  
now accepted by  
Government**

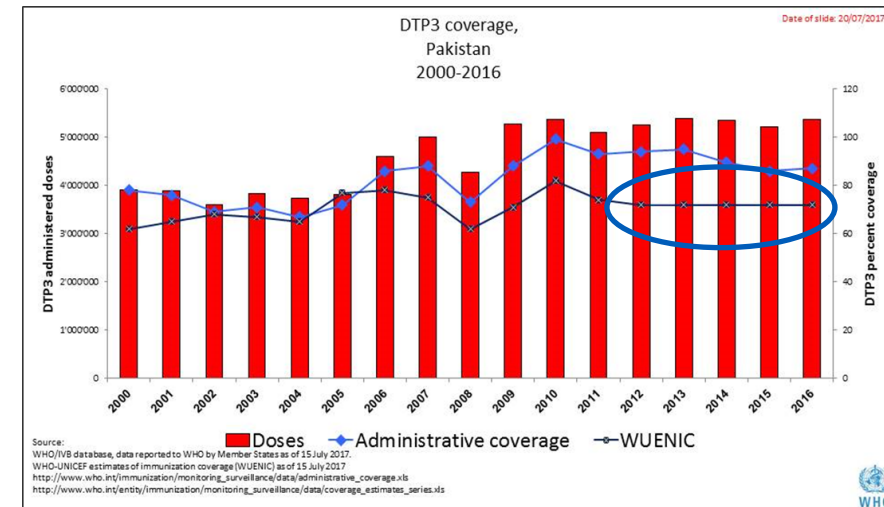
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# Challenges with WUENIC data – Pakistan example

Coverage: Punjab	2012 DHS	2014 Punjab MICS	2016 Punjab Health Survey
DTP3	62.5%	71.7%	85.2%
MCV1	49.7%	71.6%	84.6%



- **Tremendous progress since 2012**
- **Population of Punjab represents nearly half of Pakistan**



- **WUENIC estimate unchanged since 2012 (72%)**

# Gavi investing heavily in data and seeing some improvement but major challenges remain

## Gavi scaling up investments to transform quality of immunisation data

### Delivery, coverage & equity

- Countries able to use data to **improve immunisation coverage and equity**
- **Countries leveraging high-quality data** for macro-planning, micro-planning, supply chain and delivery system, monitoring and improving system performance

### Vaccine Safety

- Countries **identify and investigate potential serious AEFI** and conduct appropriate response and communication activities
- Critical to **better manage programme and reputation risks** and the Alliance's obligation and unique role

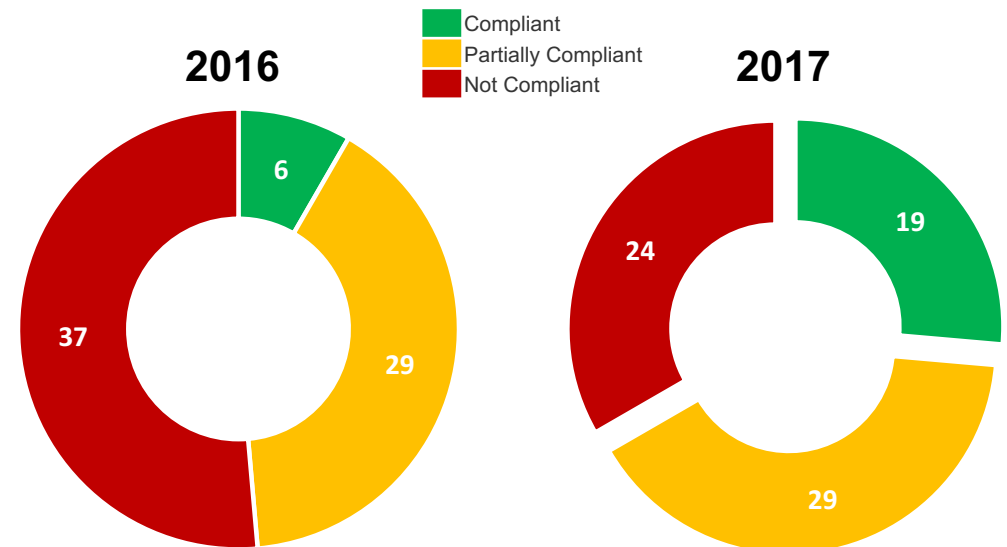
### VPD Surveillance

- Countries able to:
  - Understand potential and effective population **coverage** with vaccines
  - Mitigate **risk** (Including from disease outbreaks)
  - **Optimise** immunisation programmes
  - Assess observed vs. expected **impact** (positive and negative)

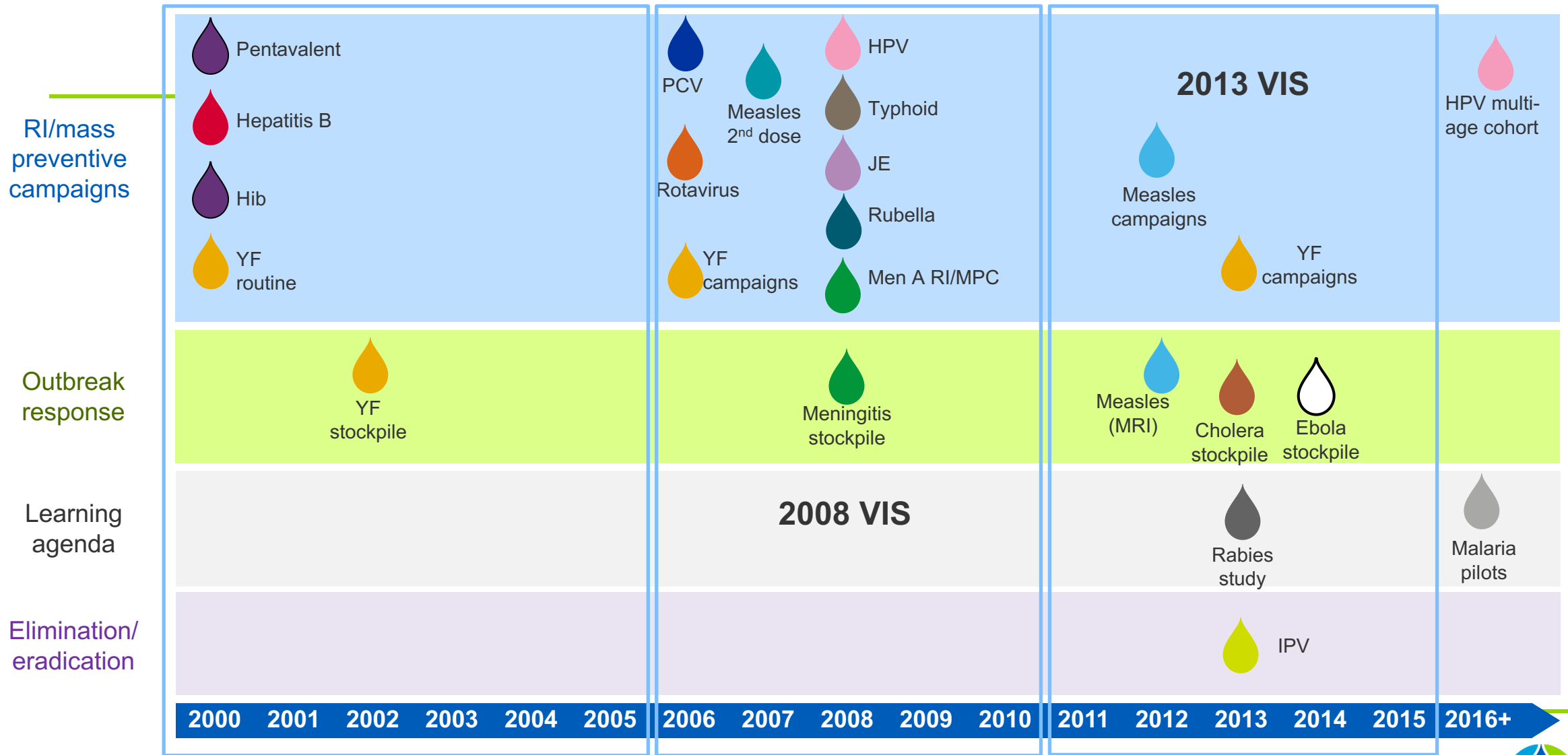
## Early progress but major challenges remain

67%

of countries are partially or fully compliant with Gavi's **data quality requirements** in 2017

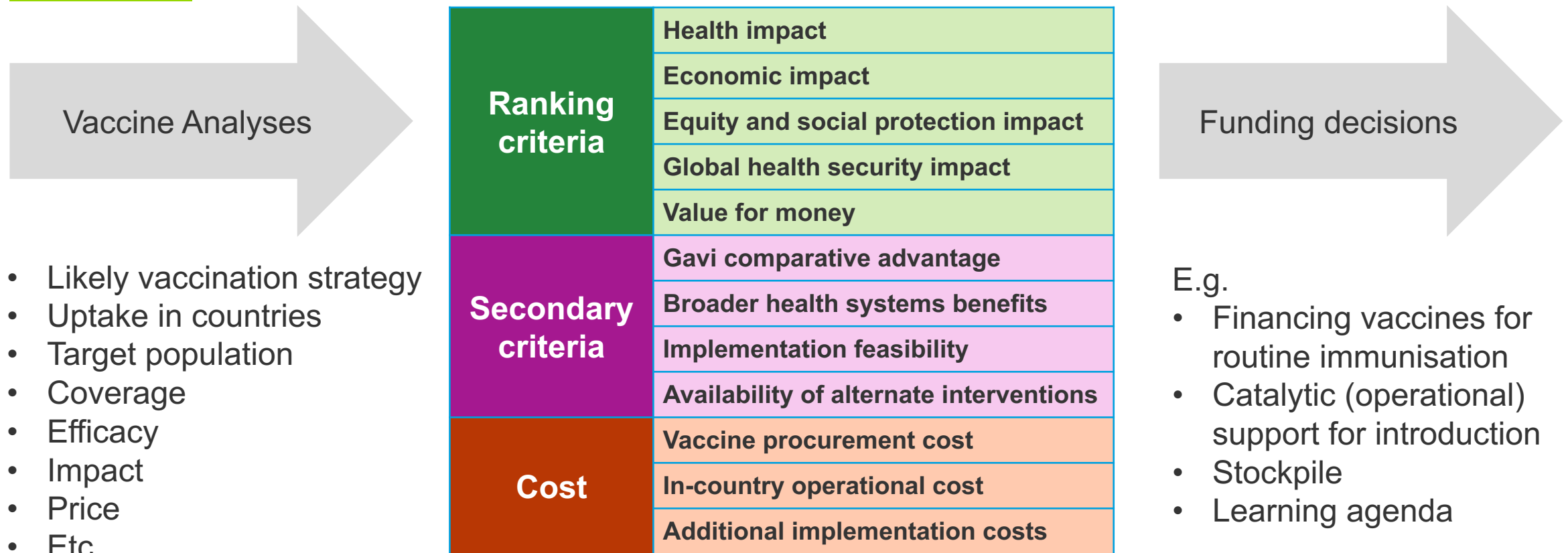


# Evolution of Gavi's vaccine portfolio





# Vaccine candidates will be evaluated and prioritised to enable potential investment decisions in 2018



← - - - - Vaccine analyses during **Oct 2017 – Feb 2018** - - - - →

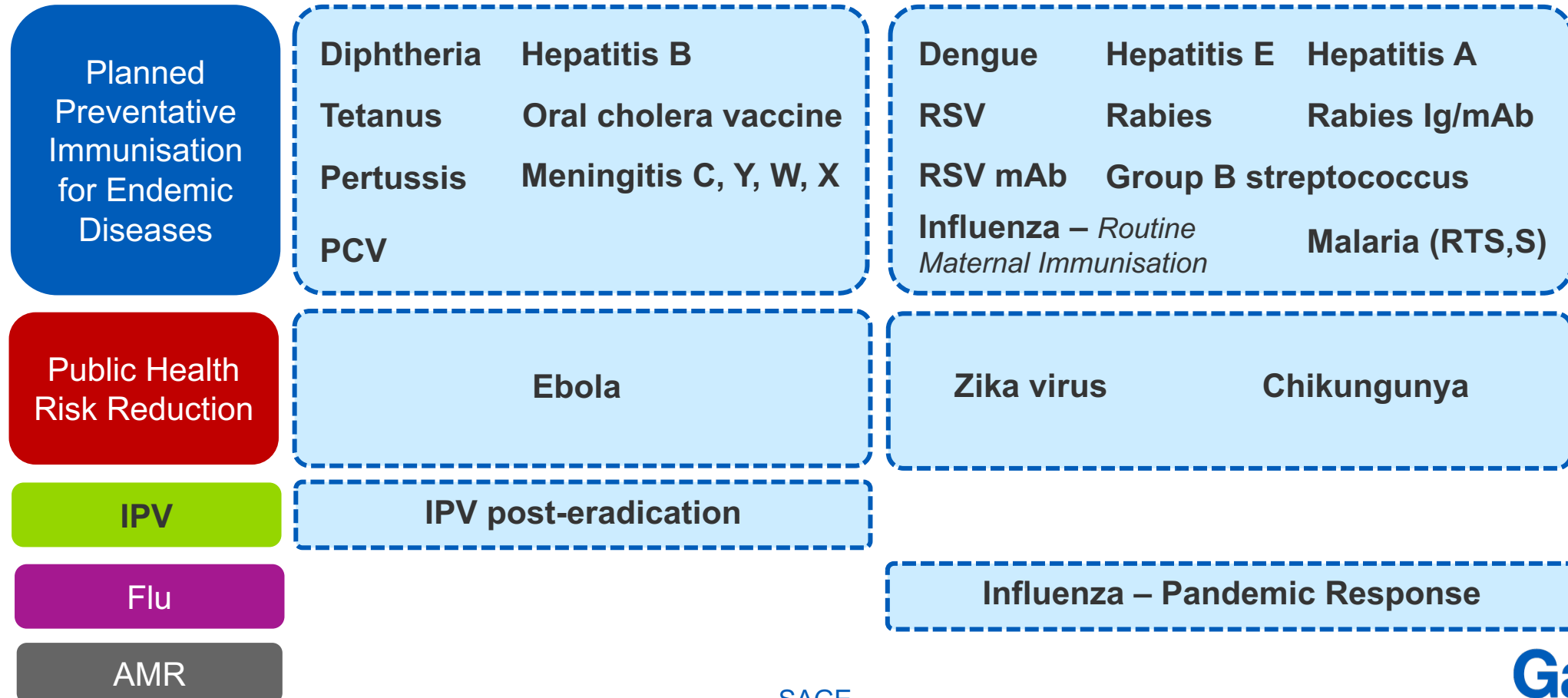
# Future vaccine investments to be decided in 2018

## Vaccine Investment Strategy

### Candidate Vaccines

#### *Incremental investments*

#### *New or pipeline vaccines*



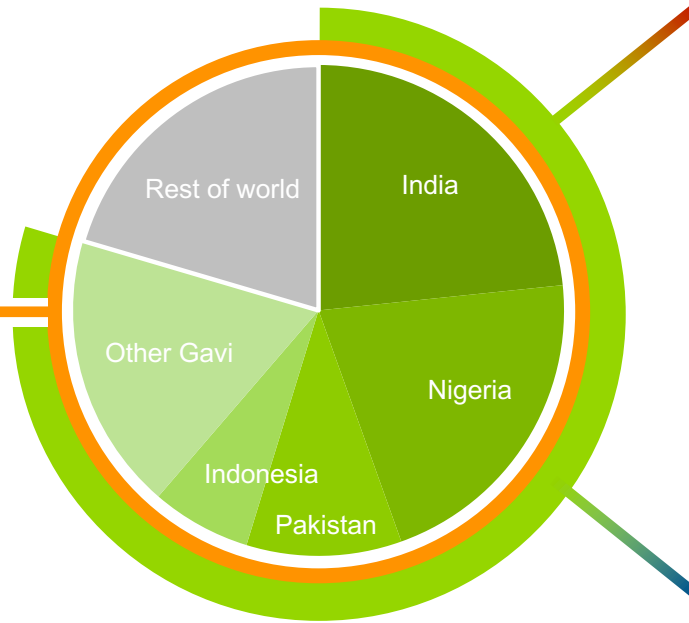
CEPI ?

\* Further analyses and information might shift this list over the course of the next few months

# The opportunity ahead



19.5  
million  
are not fully  
protected with  
the most  
**basic**  
vaccines

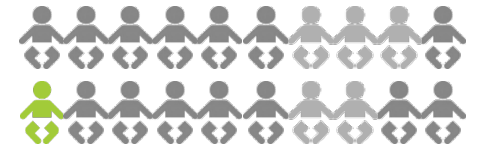


80%  
in Gavi-supported  
countries



**1 in 5**

in Gavi countries do  
not get a full course  
of the most **basic**  
vaccines



only **1 in 14**  
are **fully immunised**  
with all recommended  
vaccines

# Thank you

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[www.gavi.org](http://www.gavi.org)